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How Iranian Individuals who Suffered from Low Back Pain Describe their Disabilities? A descriptive study from Zanjan, Iran

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ABSTRACT

Aim: These disorders are frequently cause inability that limits the performances and productivity of the suffered people. This study aimed to explore how Iranian low back pain suffered describe their disabilities.

Method and Materials: This research is a descriptive study by which the studied participants who suffered from low back pain described how they were disable to do their daily activities. To do this study, the written consent form were signed by the participants if they were satisfied to be studied. Then these participant were provided with demographic and Oswestry Disability Index (ODI). Six sections of this questionnaire which were related to usual daily activities were completed by the participants. Completed data were entered into the SPSS and analyzed through descriptive statistics.

Findings: In this study 238 eligible participants including 159 female with mean age of (40.06±13.22) and 79 male with mean age of (35.56±16.12) be studied. According the finding of this study majority of the participants stated that they suffered from pain and due disability regarding daily activity such as lifting, walking, siting, standing, and personal care

Conclusion: This study showed the majority of Iranian participants suffered from disability for doing their daily activities due to their low back pain. Therefor, doing further researches to verify the results and designing proper intervention is strongly recommended.

Keywords: Low Back Pain, Disability , Iranian Individuals.

Introduction

Musculoskeletal Disorders (MSDs) are health/medical problems could involve muscles, cartilage, ligaments, nerves, tendons and joints. It has been reported that, MSDs are accompanied by persistent discomforts or pain [1]. These disorders are frequently cause inability that limits the performances and productivity of the suffered people. Furthermore, increased absenteeism, as well as intensive demand and expensive cost for medical interventions are due to MSDs[2]. It has been estimated that MSDs were identified in 1.7 billion people, with majority of them experiencing Low Back Pain (LBP) that required them to seek rehabilitation [3]. The other study, has been estimated that MSDs prevalence is about one in ten individuals in the general population, but at 11.2% in women and 7.2% in men respectively [4].

It has been indicated that repetitive movements, long working hours especially in wrong posture, excessive exertion, and poor physically, psychologically and socially working environments are common causes of Musculoskeletal Disorders (MSDs) [5]. According the other document, musculoskeletal disorders (MSDs) are a mail reason of inability which could effect on workability, and quality of life. Nowadays, an increased ergonomic and health education research for investigating the causes of Work-related Musculoskeletal disorders (W MSDs) have been implemented to leading proper intervention [6]. An existed evidence confirmed

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that, In the past three decades, Iran had the highest increase in the burden of musculoskeletal diseases, that the role of population aging has been the main cause [7]. This documents also verified that MSDs especially LBP in Iran was the greatest contributor to Disability - Adjusted Life Years (DALYs)and caused 4.5% of total DALYs. Moreover, these documents verified that the female population was experiencing considerably higher burden of MSD [7]. Based on recommendation of this mentioned article, the aim of the current study is to assess how the Iranian people state their disability due to their low back pain.

Table 1) Demographic characteristics of the studied participants

Variables	
Age (Years)	**Mean(SD)**
Male	35.56±16.12
Female	40.06±22.13
Gender	N (%)
Female	159 (66.8)
Male	79 (33.2)
Marital status	
Married	144(60.5)
Single	90 (37.8)
Others	40 (1.7)
Residency	
Urban	5 (2.1)
Rural	233 (97.9)
Economic status	
Good	83 (34.9)
Medium	148 (62.2)
Bad	7 (2.9)
No of children	
2≤	199 (83.6)
3-5	33 (13.9)
6≥	6 (2.5)

Method and Materials

This research is a descriptive study by which the studied participants who suffered from low back pain described how they were disable to do their daily activities. This research is a descriptive study by which the studied participants who suffered from low back pain described how they were disable to do their daily activities. This study was deprived from a general physician thesis which was approved in Ethical Committee of ZUMS with the code of IR.ZMUS>REC>1399.

The inclusion criteria was being suffered from low back pain more than three months. Exclusion criteria were being suffered from mental disorders, consumption drugs due to depression or anxiety and history of surgery on column vertebra. The sample size in current study was determined based on statistics formula. In this study convenient sampling was applied to select participants so that the referees to the orthopedic and neurosurgery clinics of ZUMS who did not suffer from exclusion criteria and be satisfied to be studied were registered after obtaining the signed consent. Then these participant were provided with demographic and Oswestry Disability Index (ODI) . Oswestry Disability Index was used to assess the inability to perform daily and social activities. In this study the first six sections of the questionnaire which were related to usual daily activities of Iranian people were completed by the participants. These sections were as following areas: ability to take care of oneself, lifting objects, lying down, sitting, standing, and sleeping. Originally, this questionnaire was published in 1980 [8]. The Persian version of that was validated in previous research [9]. Completed data were entered into the SPSS and analyzed through descriptive statistics.

Table 2) Distribution of pain intensity and disability among studied participants

Pain intensity	Frequency	Per cent
I have no pain at the moment	2	0.84
The pain is very mild at the moment	91	38.2
The pain is moderate at the moment	70	29.4
The pain is fairly severe at the moment	28	11.7
The pain is very severe at the moment	44	18.4
The pain is the worst imaginable at the moment.	3	1.2
Total	238	100
Personal care (washing, dressing etc)		
I can look after myself normally without causing extra pain	128	53.8
I can look after myself normally but it causes extra pain	56	23.5
It is painful to look after myself and I am slow and careful	25	14.7
I need some help but manage most of my personal care	11	4.6
I need help every day in most aspects of self-care	4	1.7
I do not get dressed, I wash with difficulty and stay in bed.	4	1.7
Total	238	100
Lifting	238	100
I can lift heavy weights without extra pain.	60	25.2
I can lift heavy weights but it gives extra pain.	108	45.4
Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed eg. on a table.	25	10.5
Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned.	18	7.5
I can lift very light weights.	23	9.7
I cannot lift or carry anything at all.	4	1.7
Total	238	100
Walking	238	100
Pain does not prevent me from walking any distance	129	55.1
Pain prevents me from walking more than 2 kilometers	70	29.9
Pain prevents me from walking more than1 kilometer	15	6.4
Pain prevents me from walking more than500 meters	8	3.4
I can only walk using a stick or crutches	8	3.4
I am in bed most of the time	4	1.8
Total	234	100
Sitting		
I can sit in any chair as long as I like	61	25.6
I can only sit in my favorite chair as long as I like	116	48.7
Pain prevents me from sitting for more than one hour	39	16.4
Pain prevents me from sitting for more than 30 a minutes	16	6.7
Pain prevents me from sitting for more than10 a minutes	5	2.1
Pain prevents me from sitting at all	1	4
Total	238	100
Standing	47	20
I can stand as long as I want without extra pain	90	38.3
I can stand as long as I want but it gives me extra pain	50	21.3
Pain prevents me from standing for more than1 hour	30	12.8
Pain prevents me from standing for more than3 minutes	14	6
Pain prevents me from standing for more than10 minutes	4	1.7
Pain prevents me from standing at all	235	100
Total		

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Findings

In this study 238 eligible participants including 159 female with mean age of (40.06±13.22) and 79 male with mean age of (35.56±16.12) be studied. The rest demographic characteristics are shown in Table 1. The participants' responses to the Oswestry low back pain disability questionnaire were shown in Table 2. According the finding of this table near half of the participants stated that they suffered from pain and due disability.

Discussion

The aim of this study was to explore how Iranian low back pain suffered stated their disabilities. According the results, majority of studied participants stated they suffered from different severity of low back pain. This finding is in the line of other study that reported in recent years, low back pain has significantly increased among Iranian people [7] that aging has been one of main factors. This mentioned document [7] reported female were at more risk of low back pain. Another study [4] also noted that women experience higher levels of musculoskeletal pain than men. This finding about gender differences in MSDs is supported by studies that reported women are at higher risk than men in this regard. In our study, the age group range was at pre- elderly and the majority of the participants were female. However, gender and age difference regarding experienced LBP and disability were not examined in the current study.

In this study ODI was used to measure disability of the participants. According previous study this tool is a reliable, valid, and responsive specific assessment tool [8] . This tool has been used mostly in either chronic or severely disabled populations or less severe complaints too. Based on the findings from these assessments majority of the participants stated that they experience some pain while they were looking after themselves. Thus doing some work for these participants were difficult for them. The participants of the current study expressed that while lifting things from the floor, they experience more severe low back pain. In this regard, another study verified that repetitive movement in work place such as lifting is a main reason for low back pain [2, 5]. Furthermore, an existed document verified that while doing domestic work like housework especially for women make them lift many instruments from the floor or tables and these duties cause more severe pain for them [11.12].

Many participants of this study explained that when they walk for 1kilometer distance or less, or even when they stand for a long time they experienced severe pain. In accordance with this finding, previous studies documented that nature of many works which people do like preparing food, washing clothes, cooking, and cleaning demand long standing and walking by which mechanical pressure forced to low back vertebra especially in poor and awkward postures that can damage different parts of bodies [13].

Sitting was another daily activity that the participants of the current study stated. To response to this section of ODI tool, they described that they have problem and backache when they sit for a long time. An extensive study which was conducted in Iran showed that 15.7 % of Iranian people over 15 years old suffered from low back pain [14]. This study [14] verified that sitting on floor and in wrong posture -as a wrong life style among Iranian- could contribute to more prevalence of low back pain among in this target population which leading to disability.

Like other researches, this study has some limitations. One of limitations was that the responses to the ODI instrument was through self-report that might be miss-

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information. Another limitation is about not analyzing demographic differences due to low back pain and disability. However, despite of these limitations , this study has its' own strong points because using standard instruments, large sample size and so obtaining the results that were in the line of many valid mentioned documents.

Conclusion

This study showed the majority of Iranian participants suffered from disability for doing their daily activities due to their low back pain. Therefore, doing further researches to verify the results and designing proper intervention is strongly recommended.

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Conflicts of Interest: There is no conflicts of interest for this study

Authors' Contribution: RM was the principal investigator and designed the study and conducted all stages of the study. MHP was supervisor of the study and NM was advisor of the study.

Ethical Permissions: This study was deprived from a general physician thesis which was approved in Ethical Committee of ZUMS with the code of IR.ZMUS>REC>1399.

Findings: None

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